

# PATENT SPECIFICATION (11)

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(19)



## (54) AN IMPROVEMENT IN OR RELATING TO PLASTICS BAGS

(71) I, MALCOLM STUART GRAY, a British Subject, of 20 Parkside Road, Hoyland Common, Barnsley, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in the following statement:—

The invention relates to plastics bag and has for its object to provide an improvement therein.

According to one aspect of the invention, a synthetic plastics bag for carrying food-stuffs and the like in separate compartments is constituted by upper and lower sheets of material joined together along marginal edge portions, a transverse slot extending across the uppermost sheet, but stopping short of the marginal edge portions of the bag, and an aperture being formed intermediate the ends of the lowermost sheet and intermediate the ends of the transverse slot, the arrangement being such that opposite halves of the bag can hang down and constitute separate compartments on opposite sides of an extraneous carrying handle in the form of a stout rod or pole, so that a mid-portion of said rod or pole can be grasped through the aperture in the lowermost sheet and access can be had to the separate compartments formed at the opposite sides of the rod or pole through apertures formed by the transverse slot in the uppermost sheet. Preferably, the compartments at opposite sides of the rod or pole will be sub-divided by heat sealing the upper and lower sheets together along lines which extend from marginal edge portions of the bag to points intermediate the ends of the transverse slot. The outline shapes of the upper and lower sheets will preferably be rectangular. The upper and lower sheets may be joined together along one marginal edge portion by means of a fold, said sheets having been formed from a common piece. The sheets will then have been joined together along the other three

marginal edge portions by heat sealing. Otherwise the upper and lower sheets may be joined together along opposite marginal edge portions by means of folds, said sheets having been made of a length of tubular synthetic plastics material in its flat condition, and in this case the sheets may have been joined together along the other two marginal edge portions by heat sealing. A further possibility is that the sheets may have been formed separately and all four marginal edge portions joined together by heat sealing.

According to a further aspect of the invention, there is provided a method of making a synthetic plastics bag for carrying food-stuffs and the like in separate compartments, the method including the steps of forming a transverse slot across what is to be an upper sheet of material, said slot stopping short of edge portions of said sheet, forming a smaller aperture intermediate the ends of what is to be a lower sheet of material, and joining the upper and lower sheets of material together along marginal edge portions so that the aperture in the lowermost sheet is disposed intermediate the ends of the slot in the uppermost sheet and so that opposite halves of the bag thus formed, that is to say at opposite sides of the transverse slot, can hang down on opposite sides of an extraneous carrying handle in the form of a stout rod or pole, whereby a mid-portion of said rod or pole can be grasped through the aperture in the lowermost sheet and access can be had to the separate compartments formed on the opposite sides of the rod or pole through the transverse slot in the uppermost sheet. The method may include the further step of sub-dividing the compartments on opposite sides of the transverse slot in the uppermost sheet by heat sealing the upper and lower sheets together along lines which extend from marginal edge portions of the bag to points intermediate the extreme ends of the transverse slot and may include the prior step of

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5 folding a common piece of synthetic plastics material to form the upper and lower sheets of material. On the other hand it may include the prior step of cutting a length of tubular synthetic plastics material, said length of material in flat condition forming the upper and lower sheets of material, or may include the prior step of cutting separately the sheets of synthetic plastics material which are to constitute the upper and lower sheets, the subsequent step of joining together the marginal edge portions of said sheets being effected by heat sealing.

10 In order that the invention may be fully understood and readily carried into effect, the same will now be described, by way of example only, with reference to the accompanying drawings, of which:—

15 Figure 1 is a view of a plastics bag embodying the invention, shown in a flat condition,

Figures 2 and 3 are respective side and perspective views which show the bag in use, and

20 Figures 4, 5 and 6 are views which will presently be referred to when describing possible modifications.

25 Referring now to Figures 1 to 3 of the drawings, a synthetic plastics bag generally indicated 10, for carrying foodstuffs and the like in separate compartments, is constituted by upper and lower sheets 12 and 14 of heat sealable material. The sheets are of rectangular outline shape as shown in Figure 1 and, said sheets having been formed separately, all four marginal edge portions of the upper and lower sheets are heat sealed together.

30 A transverse slot 16 extends across the uppermost sheet but stops short of the marginal edge portions of the bag as shown to form narrow gussets 18. A smaller aperture 20 is formed at the centre of the lowermost sheet, that is to say midway between the ends of the transverse slot. The aperture 20 is substantially of diamond shape as shown and the transverse slot is the same width as said aperture at its centre but tapers towards each end. The separate compartments thus formed at opposite sides of the transverse slot are sub-divided by heat sealing of the upper and lower sheets together along lines 22 which extend from marginal edge portions of the bag to points midway between the ends of the transverse slot.

35 As shown in Figures 2 and 3, the arrangement is such that opposite halves of the bag can hang down on opposite sides of an extraneous carrying handle in the form of a stout rod or pole 24 a mid-portion of which can be grasped through the aperture 20. Access can be had to the separate compartments formed on the opposite sides of the rod or pole through the transverse slot 16.

40 It has been found that the bag just described, when loaded evenly with goods,

has been quite firmly located on the rod or pole. However, in Figure 3 the narrow gusset portions of the bag are shown secured to the rod or pole by means of spring steel clips 26 and this is useful when loading the bag first at one side and then at the other or when the bag is unevenly loaded.

Referring now to Figure 4, in a modification of the bag just described the aperture 20 has been formed in a circular shape and is of slightly less width than that of the slot 16. In a further modification shown in Figure 5 the separate compartments are made of unlike width as shown but the aperture 20 is still located at the centre of the lowermost sheet. In Figure 6 there is illustrated a still further modification in which, instead of a single transverse slot 16, the uppermost sheet 12 is provided with a pair of adjoining slots 28 and 30 divided by a narrow strip of material 32 which is heat sealed to the lowermost sheet in line with the lines of heat sealing which divide the compartments of the bag. This considerably strengthens the bag. However, the aperture 20 in the lowermost sheet is in this case located intermediate the ends of the slot 30.

Various other modifications may be made without departing from the scope of the invention. For example, the shape of the transverse slot in the uppermost sheet (or the shapes of the adjoining slots, as the case may be,) need not be as illustrated in the drawings. Similarly, instead of being of diamond or circular shape the aperture 20 in the lowermost sheet could be of any other preferred shape.

Furthermore, the material which is cut out of the uppermost sheet to form the transverse slot or slots therein may be retained to act as a cover for the loading apertures of the bag. In other words, such areas of material need not necessarily be completely cut out but may be defined by slits in the uppermost sheet to form flaps of material extending across the uppermost sheet but stopping short of the marginal edge portions of the bag.

A bag embodying the invention can be made of very thin gauge synthetic plastics material, and thus be quite inexpensive, and still be capable of carrying quite substantial loads. It has been found that this results from the fact that the ends of the transverse slot or adjoining slots in the uppermost sheet stop short of the marginal edge portions of the bag. It will be understood that the subdividing of the compartments on opposite sides of the rod or pole facilitates the division of various kinds of goods being carried, i.e. soaps or foodstuffs can be kept separate. However, it will be understood that this is not essential to the invention.

Various other modifications may be made without departing from the scope of the

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invention. For example, it may be found convenient to make the upper and lower sheets of material from a common piece in which case said sheets will be joined together along one marginal edge portion by means of a fold, the other three marginal edge portions being joined by heat sealing. The bag could alternatively be made of tubular synthetic plastics material, being heat sealed along the required lines and edges in its flat condition.

The form of bag described above lends itself ideally to being used for shops and stores for the delivery of previously ordered household provisions and the rods or poles on which the bags are suspended can conveniently extend beyond the ends of the bag as shown in Figures 2 and 3 for location on rails in a specially adapted delivery vehicle. The bags may be loaded in a flat condition before being placed on the rods or poles. The shapes of the bags may be varied, for example by the corners being removed before the sheets are heat-sealed together.

WHAT I CLAIM IS:—

1. A synthetic plastics bag for carrying foodstuffs and the like in separate compartments, the bag being constituted by upper and lower sheets of material joined together along marginal edge portions, a transverse slot extending across the uppermost sheet, but stopping short of the marginal edge portions of the bag, and an aperture being formed intermediate the ends of the lowermost sheet and intermediate the ends of the transverse slot, the arrangement being such that opposite halves of the bag can hang down and constitute separate compartments on opposite sides of an extraneous carrying handle in the form of a stout rod or pole, so that a mid-portion of said rod or pole can be grasped through the aperture in the lowermost sheet and access can be had to the separate compartments formed at the opposite sides of the rod or pole through apertures formed by the transverse slot in the uppermost sheet.

2. A synthetic plastics bag according to claim 1, in which the compartments at opposite sides of the rod or pole are sub-divided by heat sealing the upper and lower sheets together along lines which extend from marginal edge portions of the bag to points intermediate the ends of the transverse slot.

3. A synthetic plastics bag according to either one of the preceding claims, in which the outline shapes of the upper and lower sheets are rectangular.

4. A synthetic plastics bag according to any one of the preceding claims, in which the upper and lower sheets are joined together along one marginal edge portion by means of a fold, said sheets having been formed from a common piece.

5. A synthetic plastics bag according to

claims 3 and 4 in which the sheets have been joined together along the other three marginal edge portions by heat sealing.

6. A synthetic plastics bag according to claim 3 in which the upper and lower sheets are joined together along opposite marginal edge portions by means of folds, said sheets having been made of a length of tubular synthetic plastics material in its flat condition.

7. A synthetic plastics bag according to claim 6, in which the sheets have been joined together along the other two marginal edge portions by heat sealing.

8. A synthetic plastics bag according to claim 3, in which the sheets have been formed separately and all four marginal edge portions have been joined together by heat sealing.

9. A method of making a synthetic plastics bag for carrying foodstuffs and the like in separate compartments, the method including the steps of forming a transverse slot across what is to be an upper sheet of material, said slot stopping short of edge portions of said sheet, forming a smaller aperture intermediate the ends of what is to be a lower sheet of material, and joining the upper and lower sheets of material together along marginal edge portions so that the aperture in the lowermost sheet is disposed intermediate the ends of the slot in the uppermost sheet and so that opposite halves of the bag thus formed, that is to say at opposite sides of the transverse slot, can hang down on opposite sides of an extraneous carrying handle in the form of a stout rod or pole, whereby a mid-portion of said rod or pole can be grasped through the aperture in the lowermost sheet and access can be had to the separate compartments formed on the opposite sides of the rod or pole through the transverse slot in the uppermost sheet.

10. A method of making a synthetic plastics bag according to claim 9, including the further step of sub-dividing the compartments on opposite sides of the transverse slot in the uppermost sheet by heat sealing the upper and lower sheets together along lines which extend from marginal edge portions of the bag to points intermediate the extreme ends of the transverse slot.

11. A method of making a synthetic plastics bag according to either one of claims 9 and 10, including the prior step of folding a common piece of synthetic plastics material to form the upper and lower sheets of material.

12. A method of making a synthetic plastics bag according to either one of claims 9 and 10, including the prior step of cutting a length of tubular synthetic plastics material, said length of material in flat condition forming the upper and lower sheets of material.

13. A method of making a synthetic plas-

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tics bag according to either one of claims 9  
and 10, including the prior step of cutting  
separately the sheets of synthetic plastics  
material which are to constitute the upper  
5 and lower sheets, and including the subse-  
quent step of joining together the marginal  
edge portions of said sheets by heat sealing.  
14. A synthetic plastics bag constructed  
and arranged substantially as hereinbefore  
10 described with reference to and as illustrated

by the accompanying drawings.

15. A method of making a synthetic  
plastics bag for carrying foodstuffs and the  
like, substantially as hereinbefore described  
with reference to the accompanying drawings. 15

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COMPLETE SPECIFICATION

2 SHEETS

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Sheet 1

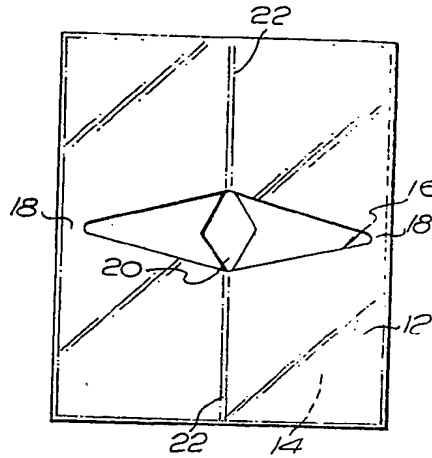


FIG 1

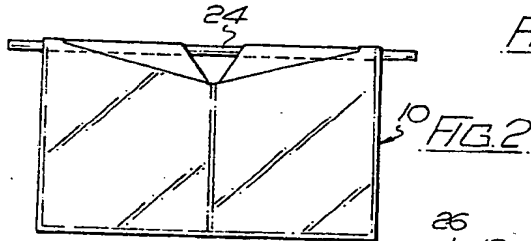


FIG 2

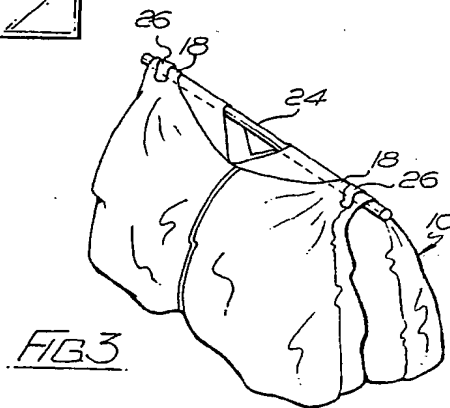


FIG 3

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COMPLETE SPECIFICATION

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Sheet 2

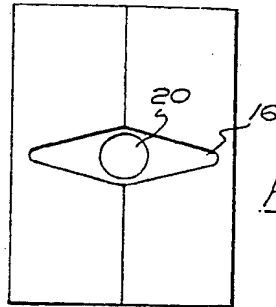


FIG. 4

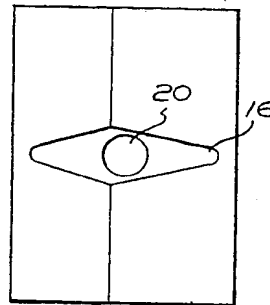


FIG. 5

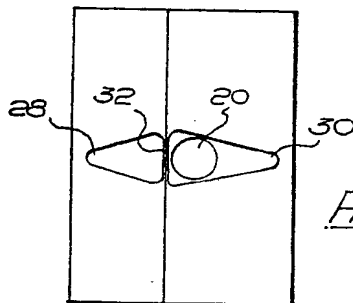


FIG. 6

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